

Early Action Compact Milestone – March 2004
List of Emission Reduction Strategies Under Consideration

Richland County

Based on stakeholder consultation and taking into consideration resource and political constraints, the following control measures under consideration can be reasonably implemented. It is anticipated these measures under consideration will assist Richland County in achieving and/or maintaining the 8-hour ozone standard by 2007 and beyond.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Air Quality Contact	County staff person responsible for air quality education/outreach and dissemination of ozone forecast. Roxanne Matthews is county contact.	Not applicable	March 2003	County wide
Gas Can Exchange Project	Richland County is actively participating in a gas can exchange project to be held June 5, 2004. During this event, the public will be educated on the amount of emissions resulting from leaking gas cans, and will also receive literature regarding recycling. Older traditional gas cans release about 8 pounds of VOCs through spills and evaporative each year. Trading in an older, leaky gas can for a new spill-proof container can result in a 75% reduction per can in VOCs.	Trading in an older, leaky gas can for a new spill-proof container can result in a 75% reduction per can in VOCs.	June 5, 2004 (one-day event; will hopefully become annual event.)	Lexington/Richland Counties
Support state-wide emission reduction	County will offer support to DHEC for statewide emission reduction efforts such as	Not applicable	Upon implementation	County wide

efforts	open burning, and BACT		by state	
Promote land-use planning intentionally altering the urban environment to improve air quality. Examples are transit oriented development, infill development, and pedestrian oriented development, concentrated activity centers, strengthening downtowns, balancing location of housing and employment opportunities. Can include policies, programs, or actions such as zoning regulations, design controls, "green development" practices, and incentive programs	Richland County is in the process of rewriting its outdated Land Development Code. This ongoing process has included input from citizens and staff, and the information contained within this updated code incorporates these ideas within the document. The code contains many positive, proactive land-use planning directives. The Land Development Code puts forth the ideas that are prevalent throughout the code; that of zoning regulations, design controls, and "green development" practices, each of which promotes smart growth, and thereby inadvertently improves air quality. One section of the code deals with the Town and Country Zoning District. This zoning designation illustrates transit-oriented development, pedestrian oriented development, concentrated activity centers, strengthening downtowns, and balancing location of housing and employment opportunities. Landscaping Standards are also included in the Land Development Code. Planted trees reduce the need for air conditioning, reduce the heat island effect in urban areas, and reduce energy usage. Tree ordinances have been drafted to establish		The Land Development Code's proposed implementation date is January 1, 2005	County wide

to encourage smart growth.	minimum tree planting standards for new development, and to promote strategic tree planting, street trees, and parking lot trees. Stringent specifications are laid out in the landscaping portion of the code, along with repercussions for not abiding by these standards. The Code also points out smoke and particulate matter being released into the environment. The Land Development Code promotes pedestrian-friendly developments, and encourages bicycling and mass transit. Air quality is also enhanced by open spaces provided for in the Code.			
Join and participate in Clean Cities	Richland County is a stakeholder in Clean Cities. We will seek forth ways to possibly increase the availability of alternative fuels in our county, to increase the use of those fuels, and to increase public awareness of the benefits of using alternative fuels. Richland County sends a representative to Clean Cities meetings.		July 22, 2003	County Wide
Industry Advisory Panel	Richland County seeks to create a forum by which local industries can communicate new ideas, and inform each other of the strides each has made in ozone reduction. This panel will focus on industries emitting the highest amounts of VOCs and NOx, but all Richland County industries and other interested parties will be invited to participate. Form a group representing		Summer 2004	County wide

	stationary NOx sources in the county to share best practices, share technical resources in the county, and pursue targeted NOx reductions. This group could review emission inventories and modeling data to identify stationary sources with significant impact on ozone air quality. This group could also share best practices for NOx control technology and technical/engineering resources and encourage NOx reductions to support ozone attainment.			
Require replacement of all gasoline golf carts with electric.	Richland County has researched the possibility of purchasing electric golf carts for our county fleet. We currently have 4 golf carts, all of which use gasoline. Electric carts are lower maintenance and lower cost, and parts are also easier to get, thus providing more of an incentive to purchase electric carts in the future. The recommendation has been made to our Procurement Department that purchasing electric golf carts be pursued in the future.		Emphasis will be placed the next time a golf cart is purchased.	County Government Initiative
Assist with establishing alternative fuels for public fleets. Fuels other than gasoline and diesel that are used to power on-road vehicles. Examples of	Richland County is looking to purchase around 15 CNG vehicles for its motor pool in FY 2004-2005. (We have applied for a Clean Cities grant to assist in the incremental cost of replacing these vehicles.) Richland County seeks to replace all practical vehicles (not including emergency/patrol vehicles) with alternatively fueled vehicles over the next		Richland County seeks to begin replacing petroleum-operated vehicles with AFV's in late 2004	Internal County Government Initiative

alternate fuels include bio-diesel, electricity, ethanol, liquefied petroleum gas, methanol, and natural gas.	few years. Richland County is also looking at the use of ULSD. Richland County is also considering E85 as an AFV option.			
Implement a program to educate and motivate individuals to take actions to minimize ozone pollution. Includes a focused distribution of educational materials, dissemination of SCDHEC ground-level ozone forecast, increased media alerts to specific audiences, and includes action oriented components (i.e. ridesharing, telecommuting, etc.)	Richland County staff has composed and distributed a flier that is to be conspicuously displayed in all County departments. This information will also be placed on the County's website. Fliers include educational information regarding ozone awareness, and preventive measures that can be taken by all citizens. Email alerts to Richland County employees will be sent out on unhealthy air quality days (beginning May 1 st , 2003). This information will also be posted on the county's website.		June 2003 (Website up.) June 2003 (Flier distributed to County Departments)	County wide initiative. Information available online to the public at www.richlandonline.com
Meet with representatives of other metropolitan	Have spoken to municipalities in Richland County regarding ozone emission reduction strategies. Per Judith Edwards, Risk		Ongoing (Began Spring 2003)	Internal County Government Initiative

<p>areas that have implemented programs to learn from experiences. Determine feasibility of replicating successful programs or components in local areas.</p>	<p>Manager for the City of Columbia, “the City of Columbia is promoting car pooling for its employees on a personal level as well as a business level wherever it is possible; promoting using the Trolley for getting around the downtown and Vista areas; promoting using the public bus transportation; having employees conserve energy by turning off lights, pc’s, and any other source of electrical usage which is considered non-essential; asking the various community development groups to promote public awareness; and making sure that through the code ordinances that new businesses locating within the City are in compliance with air pollution standards.:</p> <p>Per John Hanson, Irmo Town Administrator: “The Town of Irmo... promotes the Clean Air Act and willingly supports control measures aimed at reducing pollution. The Town also requires employees to conserve energy by turning off lights, PC’s, and any other source of electrical usage, which is considered non-essential.”</p> <p>Per Judy Cotchett Smith, Palmetto Health (One of Richland County’s largest employers; hospital system). “Palmetto Health encourages car pooling and the public transportation system. Palmetto</p>			
---	---	--	--	--

	<p>Health Richland and Baptist are the first and second largest users of the bus system respectively.</p> <p>Air pollution: Palmetto Health uses natural gas to run our generators at PH Richland. Natural gas burns cleaner. Natural gas is also the primary fuel source of our boilers.</p> <p>Energy conservation: Several years ago Palmetto Health retrofitted all the light ballasts to a more efficient type. PH has installed several variable speed motors in the pumping system to automatically reduce the energy consumption during times of decreased demand. PH tints windows to control external heat loads.”</p> <p>Per Renee Stephens, SH&E Manager for Square D (one of Richland County’s largest employers). “Square D received registration to the ISO 14001 standard for our Environmental Management System (EMS) in September 2000. As part of our EMS, we have established and completed several objectives and targets relative to ozone reducing activities. These include the following:</p> <p>Replaced and existing chiller with a more energy efficient model and also replaced the CFC’s with HCFC’s.</p> <p>Provided information and training to our employees to increase the level of ozone awareness to our employees in 2002.</p>			
--	---	--	--	--

	<p>In 2003, SCDHEC BAQ employees participated in the Square D SH&E Fair providing information to our employees on the “Take a Break From The Exhaust” and “Trade It In for Cleaner Air” programs. The Toyota hybrid gas/electric car was also available for employees to test drive.</p> <p>In 2003 implemented Energy Savings Plan which included: 1) raised plant temperature during summer operating hours, 2)computer monitors are shut-off at night, 3)office/plant lighting are shut-off during non-operating hours, 4)plant boiler is shut-off at night, and 5)installed motion sensing lighting in offices. Energy conservation will continue to be evaluated as art of our program.</p> <p>Proposed objective for 2004 to participate in SCHEC’s “Take A Break From The Exhaust” program during the ozone forecast season.”</p> <p>The Central Midlands Transit Authority is currently running 7 Compressed Natural Gas (CNG) buses. The remainder of the fleet (36 buses) run on new technology, clean burning diesel.</p> <p>Actively participating in Clean Cities, which has members from other counties/ municipalities.</p>			
Use compressed	Many Richland County employees operate	Various departments	Ongoing	Internal County

work weeks or flexible work hours, which helps reduce traffic congestion during the peak driving hours by spreading out the number of vehicles on the roadway over a longer period of time.	on a flex-schedule. We hope to expand this program to other departments, where feasible.	utilize flex scheduling. This not only helps the environment, but cuts down on employee absenteeism as well.		Government Initiative
Encourage carpooling / vanpooling as an option where employees living in the same area agree to ride to work together rather than to drive their individual vehicles to work.	Encourage carpooling whenever possible.	Depending upon the number of people who carpool, a number of cars taken off highway can be determined.	Ongoing	Internal County Government Initiative
Local government joins and participates in the SC Early Action Plan for 8-hour ozone.	Richland County is actively participating in this process.		County Council agreed to participate in December 2002. Process is ongoing.	County wide
Develop City and County Energy Plan (Energy	Richland County currently promotes internal recycling in the administration building, as well as other county-owned buildings.		Ongoing	Internal County Government Initiative

Conservation) An energy plan could be developed that directs municipal departments to reduce energy use. This could include retrofitting municipal buildings/city schools and street lights for energy efficient, i.e. “Energy Star” Program, white roofs, etc., promoting transportation alternatives, and encouraging recycling and composting.	Recycling bins are placed throughout the building, ranging from white paper to aluminum cans receptacles. Will remind employees to turn out lights and turn off computers when not in use.			
Assign staff to become air quality contact / expert for jurisdiction.	Roxanne Matthews, Research Analyst roxannemathews@richlandonline.com (803) 576-2057 P.O. Box 192 Columbia, SC 29202	Not applicable	December 2002; Ongoing	Internal County Government Initiative
Encourage mass transit (transportation choices and	All Richland County citizens have access to mass transit. Use of mass transit is specifically encouraged for county, city, and state employees. The county also wishes to		Ongoing	County wide and Internal County Government Initiative

alternatives)	encourage large area employers to adopt these measures.			
Encourage not overfilling your fuel tank. Stop when the nozzle clicks off.	This information is contained on fliers that are posted throughout county departments. The flier is also online, and available to the public.		June 2003	County wide and Internal County Government Initiative
Restrict mowing days and times all year, especially during ozone season / ozone action days. Promote the use of electric and propane lawn mowers.	Ozone action days will be a factor in scheduling county activities. Also, the county seeks to communicate to large landscaping firms asking for cooperation and encouraging all in the county to refrain from use of gas-powered equipment on ozone action days.		Ongoing	Internal County Government Initiative and possibly suggest County Wide to citizenry
Consider tree planting/landscaping standards. Planted trees reduce the need for air conditioning, reduce the heat island effect in urban areas, and reduce energy usage. Tree ordinances could be drafted to establish minimum tree planting standards for new development; and to promote strategic	Landscaping Standards are included in the Land Development Code. Tree ordinances have been drafted to establish minimum tree planting standards for new development, and to promote strategic tree planting, street trees, and parking lot trees. Stringent specifications are laid out in this section, along with repercussions for not abiding by these standards.		The Land Development Code's proposed implementation date is January 1, 2005	County wide

tree planting, street trees, and parking lot trees.				
Reduction of NOx, VOC emissions at International Paper: Eastover	<p>The International Paper (IP) facility in Eastover has utilized the "best available control technology" on all of their NOx and VOC emission units at the time of initial installation, and subsequently as part of any significant modification. The power boilers at the Eastover Mill produce low NOx emission levels because of both their design (e.g. tangential firing) and fuel type (e.g. waste wood). One power boiler at the Eastover Mill is covered under the "NOx SIP" and is expected to have emission levels well below their current allocation. IP has made recent changes that have resulted in both actual and allowable NOx emission reductions. IP is also currently evaluating innovative approaches that would result in significant future reductions of VOC emissions (>100 tons per year), without any increases in NOx emissions.</p>		Ongoing activities	International Paper (Eastover Mill)
Reduction of emissions from SCE&G	<p>Wateree Unit #1 SCR operated during much of the ozone season of 2003. Wateree's Unit #2 SCR will be online for the 2004 ozone season. SCE&G has applied for over 1400 tons of early reduction credits and has spent over 94.8 million dollars to reduce NOx in Richland County. We have currently budgeted and are doing</p>		Ongoing activities	SCE&G (Wateree Station)

	<p>the engineering for additional reductions to be installed in 2004 at McMeekin Station which is also in Richland County. The installation of separated over fired air (SOFA) is planned to reduce NOx at each unit by 20%</p> <p>SCE&G in 2003 launched an energy awareness campaign that includes billboards, ads, and bill inserts.</p>			
Prohibit/limit/ban open burning (all year or May – September or on Ozone Action Days); encourage to mulch clearing debris rather than burning it.	<p>Richland County's Code of Ordinances speaks to this measure. All fires of any kind are prohibited within the right-of-way of any street, road, or highway except in certain cases. Open fires may be set in performance of an official duty of any public officer when deemed necessary to protect property, life, or the public welfare. Salamanders or other devices may be used for heating by construction or other workers, provided no nuisance is created. Open burning is prohibited within any "residential" zoning district (with a few exceptions). During a pollution alert declared by duly constituted authority, any and all open burning shall be unlawful.</p>		Ongoing	County wide ordinance